

**CLAIMS:**

1. In a method for making Chemical pulp comprising the steps of digesting wood chips in the digester to create unbleached pulp and then bleaching the pulp and optionally subjecting the pulp to pressurized oxygen delignification; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching, or before optional oxygen delignification of the pulp.

2. In a method for making Mechanical pulp comprising the steps of grinding or refining wood to create unbleached pulp and then bleaching the pulp; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching.

3. In a method for making Chemical pulp comprising the steps of digesting wood chips in the digester to create unbleached pulp and then bleaching the pulp and optionally subjecting the pulp to pressurized oxygen delignification; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching, or before optional oxygen delignification of the pulp;

wherein said organic sulfide chelants are selected from the group consisting of monomeric dithiocarbamates, polymeric dithiocarbamates, polydiallylamine dithiocarbamates, 2,4,6-trimercapto-1,3,5-triazine, thiocarboxylic acid, thioglycolic acid, sodium trithiocarbonate, mercaptoquinazolinone, mercaptopyridine, mercaptopyrimidine, thiolactic acid, mercaptoethanol, mercaptopropanol, 2,3-dimercaptopropanol,

thioglycerol, oxydiethanethiol, disodium ethylenebisdithiocarbamate, dithiothreitol, benzenethiol, mercaptoimidazole, mercaptobenzimidazole, mercaptotriazole, mercaptotetrazole and salts thereof and mixtures thereof.

4. In a method for making Mechanical pulp comprising the steps of grinding or refining wood to create unbleached pulp and then bleaching the pulp; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching, wherein said organic sulfide chelant is selected from the group consisting of monomeric dithiocarbamates, polymeric dithiocarbamates, polydiallylamine dithiocarbamates, 2,4,6-trimercapto-1,3,5-triazine, thiocarboxylic acid, thioglycolic acid, sodium trithiocarbonate, mercaptoquinazolinone, mercaptopyridine, mercaptopyrimidine, thiolactic acid, mercaptoethanol, mercaptopropanol, 2,3-dimercaptopropanol, thioglycerol, oxydiethanethiol, disodium ethylenebisdithiocarbamate, dithiothreitol, benzenethiol, mercaptoimidazole, mercaptobenzimidazole, mercaptotriazole, mercaptotetrazole and salts thereof and mixtures thereof.

5. In a method for making Chemical pulp comprising the steps of digesting wood chips in the digester to create unbleached pulp and then bleaching the pulp and optionally subjecting the pulp to pressurized oxygen delignification; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching, or before optional oxygen delignification of the pulp, and also adding an optional additional chelant, an optional surfactant and optionally polyacrylic acid .

6. In a method for making Mechanical pulp comprising the steps of grinding or refining wood to create unbleached pulp and then bleaching the pulp; the improvement comprising treating the pulp with from about 0.002 weight % to about 0.02 weight % of an organic sulfide chelating agent before or during bleaching, and also adding an optional additional chelant, an optional surfactant and optionally polyacrylic acid .

5

10